



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,005	05/26/2005	Pierfrancesco Belli	71827	2229
23872	7590	02/22/2006	EXAMINER	
MCGLEW & TUTTLE, PC			MARMOR II, CHARLES ALAN	
P.O. BOX 9227			ART UNIT	PAPER NUMBER
SCARBOROUGH STATION				
SCARBOROUGH, NY 10510-9227			3736	

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/537,005	BELLI, PIERFRANCESCO	
	Examiner Charles A. Marmor, II	Art Unit 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-6 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-6 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 26 May 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. ____ .   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>05262005</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: ____ .                                   |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because:
  - a. The drawings are of poor quality with uneven lines, improper shading, and extraneous markings.
  - b. The drawings fail to comply with 37 CFR 1.84(p)(4) because reference character "4" has been used to designate both "means for analyzing said electrical signals" (see page 4, line 29 and page 6, line 19) and an "electromyographic apparatus" (see page 5, line 11; page 6, lines 11 and 15; page 8, lines 10, 16 and 30; and page 9, lines 3 and 8).
  - c. The drawings fail to comply with 37 CFR 1.84(p)(4) because reference character "5" has been used to designate both "means for analyzing said electrical signals" (see page 4, line 29) and an "interface" (see page 5, lines 12 and 15).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because it includes legal phraseology often used in patent claims, including "means" and "said". Correction is required. See MPEP § 608.01(b).

4. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

5. The disclosure is objected to because of the following informalities:
- a. The section headings suggested above have been omitted.
  - b. The paragraph spanning lines 17-20 of page 3 apparently should be deleted.
  - c. At page 5, lines 1, 10, 24 and 28, "said" should be deleted.
  - d. At page 5, line 20, "simmetrically" should read --symmetrically--.
  - e. The use of the trademark "Velcro" has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks

should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

- f. At page 6, line 24, "said" should be deleted.
- g. At page 6, line 32, "occur" apparently should read --occurring--.
- h. At page 8, lines 1 and 4, "be" should read --is--.
- i. At page 8, line 14, "said" should be deleted.
- j. At page 8, line 30, "electromyiographic" should read -- electromyographic --.
- k. At page 9, line 6, "said" should be deleted.

Appropriate correction is required.

#### *Claim Objections*

- 6. Claims 1-3 and 5 are objected to because of the following informalities:
  - a. At claim 1, line 6, "the variation" apparently should read --variations--.
  - b. At claim 1, line 9, "the inflation of" apparently should read --inflating--.
  - c. At claim 2, line 1, "the said" should read --said--.
  - d. At claim 2, lines 2-3, "the output" apparently should read --an output--.
  - e. At claim 2, line 3, "the output" apparently should read --an output--.
  - f. At claim 2, line 6, "the inflation of" apparently should read --inflating--.
  - g. At claim 3, line 2, --AND-- should be inserted before "gate".
  - h. At claim 5, line 1, "the said" should read --said--.
  - i. At claim 5, line 2, --for analyzing and processing-- should be inserted following "means".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the internal pressure" in line 6. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether the internal pressure referred to is that of an interior of the pneumatic belt or that of the parturient's abdomen.

Further regarding claim 1, the limitation "said sensors" recited at line 8 renders the claim indefinite. It is unclear whether the sensors that this limitation refers to are those of the electromyographic unit, those associated with the pneumatic belt, or both.

Regarding claim 2, the pronouns "its" and "whose" render the claim indefinite. One cannot be certain what these pronouns are intended to refer to.

Claim 2 recites the limitation "said sensors which are housed in the belt" in line 4. There is insufficient antecedent basis for this limitation in the claim. There are sensors disclosed as being associated with the belt, but no sensors are disclosed as being housed within the belt prior to this recitation.

Claim 3 recites the limitation "the line" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no line recited in the claims prior to this recitation.

Further regarding claim 3, the limitation "the converter" recited at line 2 renders the claim indefinite. It is unclear whether the converter that this limitation refers to is the A/D converter or the D/A converter.

Claim 4 recites the limitation "the line" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no line recited in the claims prior to this recitation.

Further regarding claim 4, the limitations "the converter" recited at lines 2 and 3 render the claim indefinite. It is unclear whether the converter that each of these limitations refers to is the A/D converter or the D/A converter.

Claim 4 recites the limitation "said first switch" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim. There is no first switch recited in claims 1, 2 or 4 prior to this recitation.

Claim 6 recites the limitation "the line" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no line recited in the claims prior to this recitation.

Further regarding claim 4, the limitations "the converter" recited at line 2 render the claim indefinite. It is unclear whether the converter that each of these limitations refers to is the A/D converter or the D/A converter.

***Allowable Subject Matter***

9. Claims 1-6 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

10. The following is a statement of reasons for the indication of allowable subject matter:

No prior art of record teach or fairly suggest an apparatus for controlling childbirth labor including a pneumatic belt adapted to be fixed around the parturient's abdomen; a mechanism for inflating the pneumatic belt in order to provide a thrust as an aid for expulsion of the fetus; and a device for controlling the activation of the inflation mechanism, where the controlling device is responsive to signals from electromyographic sensors that obtain electrical signals from a parturient's uterus and pressure sensors that detect variations of the internal pressure within the pneumatic belt due to uterine contractions.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Calderon et al. ('127) teach three-dimensional monitoring of myographic activity of the uterus. Lee ('281) teaches a birth-assisting pneumatic cuff. Hahn et al. ('499) and Hahn et al. ('563) teach a child birth assisting system. Orkin et al. ('827) and Hochberg ('615) teach uterine contraction sensing methods and apparatus.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Marmor, II whose telephone number is (571) 272-4730. The examiner can normally be reached on M-TH (7:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charles A. Marmor, II  
Primary Examiner  
Art Unit 3736

cam  
February 17, 2006